IN THE SPECIFICATION

Please amend the specification as follows:

Replace the paragraph spanning pages 1-2, between page 1, line 26, and page 2, line 3 of the specification with the following:

According to an exemplary embodiment of the present invention ~~as set forth in claim 1~~, the above object may be solved with an examination apparatus for examining an object of interest, which comprises a source of radiation for generating a first radiation penetrating the object of interest and a scatter radiation detector for detecting a second radiation of the first radiation, wherein the second radiation is scatter radiation which is scattered from the object of interest. The scatter radiation detector is stationary during scanning of the object of interest and the source of radiation is displaceable during the scanning of the object of interest.

Replace the paragraph on page 2, between lines 15-21 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 2~~, the source of radiation is displaceable along at least a first portion of a first circular path. Advantageously, by moving the source of radiation along a portion of a circular path, a two-dimensional segment of the object of interest may be scanned. Since the source of radiation may only be moved along a portion of the first circular path and not along the whole circular path, the size of the examination apparatus may be reduced.

Replace the paragraph on page 2, between lines 22-30 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 3~~, a location of a region within the object of interest from which scatter originates is reflected onto a coordinate of the scatter radiation detector. Advantageously, according to this exemplary embodiment of the present invention, each coordinate of the detection area of the scatter radiation detector corresponds to a respective location of a scatter center within the object of interest. Therefore, by

determining the coordinate of the scatter radiation detector on which a scatter radiation has been detected, the location of the scattering center within the object of interest may be derived.

Replace the paragraph spanning pages 2-3, between page 2, line 31, and page 3, line 9 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 4~~, the scatter radiation detector is stationary arranged around a rotational axis during scanning of the object of interest and extends along a portion of a second circular path around the rotational axis. Furthermore, the scatter radiation detector comprises at least one detector element, wherein the at least one detector element is arranged along the portion of the second circular path, which corresponds to the first portion of the first circular path. The at least one detector element is an energy-resolving detector element and the coordinate of the scatter radiation detector, on which a height of the region within the object of interest from which scatter originates is coded, is a radial coordinate.

Replace the paragraph on page 3, between lines 17-25 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 5~~, the examination apparatus further comprises a primary collimator for collimating the first radiation such that the first radiation has a wedge shape and converges at a stationary point of the transmission detector. Furthermore, the examination apparatus comprises a secondary collimator for absorbing radiation propagating in a direction different from the direction defined by a cone semi angle and a scatter angle and comprises a transmission detector for receiving a third radiation attenuated by the object of interest. The transmission detector may be stationary during scanning of the object of interest.

Replace the paragraph on page 4, between lines 1-5 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 6~~, the secondary collimator comprises a plurality of channels formed by a radiation-absorbing

material, wherein each of the channels of the plurality of channels is oriented with respect to the direction defined by the cone semi angle and the scatter angle.

Replace the paragraph on page 4, between lines 11-19 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 7~~, the rotational axis is defined by a center of the first circular path and a center of the second circular path, wherein the rotational axis is perpendicular to a first area encircled by the first circular path and perpendicular to a second area encircled by the second circular path. Furthermore, the transmission detector is stationary arranged on the rotational axis, wherein the stationary point of the transmission detector at which the first radiation converges is located in a detection center of the transmission detector and wherein the third radiation converges at the stationary point while the source of radiation moves along a portion of the first circular path.

Replace the paragraph spanning pages 4-5, between page 4, line 24, and page 5, line 4 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 8~~, the examination apparatus is transportable and adapted for baggage inspection. Furthermore, the source of radiation is a polychromatic x-ray source. Advantageously, according to this exemplary embodiment of the present invention, objects may be examinable, which cannot be transported to a stationary suitcase or baggage scanner. This may be of particular interest for airport security applications. Furthermore, since no monochromatic radiation is needed for examination of the object of interest, no intensity-reducing monochromators have to be incorporated into the examination apparatus and therefore, a high intensity of radiation is available for inspection. However, this may also be advantageous for other applications, such as medical applications, allowing to bring the scanner to an immovable patient or industrial application.

Replace the paragraph on page 5, between lines 5-10 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 9~~, the source of radiation comprises a laser pointer. A laser beam of the laser pointer is aligned with the third radiation such that the laser beam of the laser pointer propagates parallel to the third radiation beam and aims on the stationary point, which facilitates the alignment of the examination apparatus and in particular of the radiation source, since the laser beam may be visible for the human eye.

Replace the paragraph on page 5, between lines 11-20 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 10~~, the examination apparatus further comprises a calculation unit for reconstructing an image from readouts of the transmission detector and the scatter radiation detector. Furthermore, the examination apparatus may also be adapted for the detection of explosives, for example for the application as x-ray baggage inspection system at airports, which automatically discriminates explosive materials on the basis of the reconstructed coherent scatter function images based on

readouts of the transmission detector and the scatter radiation detector by, for example, comparing reconstructed scatter functions with predetermined tables of characteristic measurements for such explosives.

Replace the paragraph on page 5, between lines 21-29 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 11~~, the above object may also be solved with a method of examining an object of interest with an examination apparatus, wherein a source of radiation is energized such that the source of radiation generates a first radiation adapted to penetrate the object of interest. Then, an energy measurement of the second radiation scattered from the object of interest by means of a scatter radiation detector with energy resolving detector elements is performed, wherein the scatter radiation detector is stationary during the scanning of the object of interest. During the scanning of the object of interest, the source of radiation may be displaced.

Replace the paragraph on page 6, between lines 4-7 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 12~~, the source of radiation is displaced along at least a first portion of a first circular path. Advantageously, moving the source of radiation along a path which is circular provides for an easy alignment of the first radiation beam.

Replace the paragraph on page 6, between lines 8-12 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 13~~, a location of a region within the object of interest from which scatter originates is coded on a coordinate of the scatter radiation detector. Therefore, according to this exemplary embodiment, by reading out the scatter radiation detector, the position of the scattering center may be derived directly.

Replace the paragraph on page 6, between lines 13-18 of the

specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 14~~, a rotational axis is defined by a center of the first circular path and a center of the second circular path. Advantageously, first and second circular paths define a first and a second area, respectively, which are parallel to each other and perpendicularly intersected by the rotational axis. The scatter radiation detector is arranged at least at a second portion of the second circular path.

Replace the paragraph on page 6, between lines 19-25 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 15~~, an apparatus, which comprises the source of radiation and the scatter radiation detector, is moved to a location of the object of interest and after that, the object of interest is examined. Advantageously, according to this exemplary embodiment of the present invention, the object of interest does not have to be moved in order to be examined. This may be of particular interest in case the object of interest is a

piece of suspicious luggage which may contain explosives.

Replace the paragraph on page 6, between lines 26-29 of the specification with the following:

According to another exemplary embodiment of the present invention ~~as set forth in claim 16~~, a laser pointer is activated, wherein a laser beam of the laser pointer is aligned with the third radiation. After that, the laser beam is aimed at the scatter radiation detector in order to align the radiation source for scanning.

Replace the paragraph on page 7, between lines 1-4 of the specification with the following:

~~Claim 17~~ Another exemplary embodiment relates to a computer program product stored on a computer-readable medium which executes the steps of the method according to the present invention when executed on an examination apparatus. Advantageously, this computer program allows for a reduction of computation power in the examination apparatus.

Replace the paragraph spanning pages 7-8, between page 7, line 26, and page 8, line 5 of the specification with the following:

The examination apparatus according to an exemplary embodiment of the present invention as depicted in Fig. 1 shows a source of radiation 1, which may be a polychromatic x-ray source 1. The x-ray source 1 is mounted on a segment of a circular track such that it is movable between the points A and A' on an arc having the vertical axis PO. The x-ray source 1 has a linear focus of dimensions about 0.5 mm x 50 mm tangentially to the direction of movement. The x-ray source 1 is provided with a primary collimator or first collimator 20 ~~(not shown in Fig. 1 for clarity)~~, so that the primary x-ray beam or first radiation beam 2 has a wedge shape and converges at the detector plane of the transmission detector 6 on the point O. The primary collimator or first collimator 20 may be designed based on the "Soller sits" principle and comprises an array of e.g. steel lamella directed to O.

Replace the paragraph on page 8, between lines 16-29 of the specification with the following:

A suitcase 11 is gradually moved in the direction of the arrow

depicted in Fig. 1 while the x-ray source tracks in azimuthal angle φ repeatedly between the locations A and A'. X-rays scattered from the suitcase at an angle of θ relative to the first radiation beam are permitted by the second collimator ~~(not shown in Fig. 1)~~ 22 to reach a scatter radiation detector 5. The lowest and highest scatter centers which may be detected by an examination apparatus such as depicted in Fig. 1 are S1 and S2, respectively, which are determined by the dimensions of the detectors 5, 6. The height of the region within the suitcase from which scatter originates is coded onto the radial coordinate of the scatter radiation detector 5 as indicated in Fig. 1. A position of the x-ray 1 source determines a horizontal position of a scatter voxel, i.e. of an information element derived from the detectors 5 and 6, which includes a measured intensity and location component. The examination apparatus depicted in Fig. 1 thus permits x-rays at constant angle of scatter to be recorded in the detector while preserving a unique coding between the position in 3-D of the scatter voxel and the positions of the x-ray source, a conveyor belt on which the suitcase is transported and the radial coordinate of the detector array 5.